

**WHAT IS CLAIMED IS:**

- 1 1. A computer implemented method of loading pages of a  
2 Java executable image, said method comprising:  
3 mapping a read-only section of the Java executable  
4 image stored on a nonvolatile storage device to an  
5 address space located in a system memory;  
6 storing mapping data resulting from the mapping in a  
7 page map;  
8 branching to an address within the address space, the  
9 branching causing a page fault;  
10 loading one or more pages from the nonvolatile storage  
11 device to the address space in response to the page  
12 fault; and  
13 executing instructions included on the loaded pages,  
14 the executing commencing at the address.
- 1 2. The method of claim 1 further comprising:  
2 selecting, based upon a system paging policy, one or  
3 more of the loaded pages; and  
4 discarding the loaded pages.
- 1 3. The method of claim 2 further comprising:  
2 branching to a second address that was included in one  
3 of the discarded pages, the branching causing a second  
4 page fault;  
5 retrieving one or more of the pages from the Java  
6 executable image stored on the nonvolatile storage

7 device, wherein the retrieved pages correspond to one  
8 or more of the discarded pages; and  
9 loading the retrieved pages into the address space,  
10 wherein the address space includes the second address.

1 4. The method of claim 1 further comprising:  
2 receiving a request to load the Java executable image;  
3 and  
4 allocating the address space in the system memory  
5 prior to the branching.

1 5. The method of claim 4 wherein the size of the address  
2 space is less than the size of the Java executable  
3 image stored on the nonvolatile storage device.

1 6. The method of claim 1 wherein the storing further  
2 comprises:  
3 writing one or more page addresses to the page map;  
4 and  
5 writing a nonvolatile storage location corresponding  
6 to each of the written page addresses to the page map.

1 7. The method of claim 1 further comprising:  
2 initializing the Java executable image by branching to  
3 the address, wherein the address is the initial  
4 address of the Java executable image.

1 8. An information handling system comprising:  
2 one or more processors;

3 a memory accessible by the processors;

4 a nonvolatile storage device accessible by the  
5 processors that includes one or more Java executable  
6 images, the Java executable images including a read-  
7 only section;

8 a tool for loading the Java executable images, the  
9 tool including software code effective to:

10 receive a request to load one of the Java  
11 executable images;

12 allocate an address space in the system memory;

13 map a read-only section of the Java executable  
14 image to the address space;

15 store mapping data resulting from the mapping in  
16 a page map;

17 cause a page fault by branching to an address  
18 within the address space;

19 load one or more pages from the nonvolatile  
20 storage device to the address space in response  
21 to the page fault; and

22 execute instructions included on the loaded  
23 pages, the executing commencing at the address.

1 9. The information handling system of claim 8 wherein the  
2 tool includes software code effective to:

3 select, based upon a system paging policy, one or more  
4 of the loaded pages; and

5 discard the loaded pages.

- 1 10. The information handling system of claim 9 wherein the  
2 tool includes software code effective to:  
3 branch to a second address that was included in one of  
4 the discarded pages, the branching causing a second  
5 page fault;  
6 retrieve one or more of the pages from the Java  
7 executable image stored on the nonvolatile storage  
8 device, wherein the retrieved pages correspond to one  
9 or more of the discarded pages; and  
10 load the retrieved pages into the address space,  
11 wherein the address space includes the second address.
- 1 11. The information handling system of claim 8 wherein the  
2 size of the address space is less than the size of the  
3 Java executable image loaded from the nonvolatile  
4 storage device.
- 1 12. The information handling system of claim 8 wherein the  
2 software code effective to store the mapping data  
3 further comprises software code effective to:  
4 write one or more page addresses to the page map; and  
5 write a nonvolatile storage location corresponding to  
6 each of the written page addresses to the page map.
- 1 13. The information handling system of claim 8 wherein the  
2 tool includes software code effective to:  
3 initialize the Java executable image by branching to  
4 the address, wherein the address is the initial  
5 address of the Java executable image.

1 14. A computer program product stored on a computer  
2 operable media for loading pages of a Java executable  
3 image, said computer program product comprising:  
4 means for mapping a read-only section of the Java  
5 executable image stored on a nonvolatile storage  
6 device to an address space located in a system memory;  
7 means for storing mapping data resulting from the  
8 mapping in a page map;  
9 means for branching to an address within the address  
10 space, the branching causing a page fault;  
11 means for loading one or more pages from the  
12 nonvolatile storage device to the address space in  
13 response to the page fault; and  
14 means for executing instructions included on the  
15 loaded pages, the executing commencing at the address.

1 15. The computer program product of claim 14 further  
2 comprising:  
3 means for selecting, based upon a system paging  
4 policy, one or more of the loaded pages; and  
5 means for discarding the loaded pages.

1 16. The computer program product of claim 15 further  
2 comprising:  
3 means for branching to a second address that was  
4 included in one of the discarded pages, the branching  
5 causing a second page fault;

6 means for retrieving one or more of the pages from the  
7 Java executable image stored on the nonvolatile  
8 storage device, wherein the retrieved pages correspond  
9 to one or more of the discarded pages; and

10 means for loading the retrieved pages into the address  
11 space, wherein the address space includes the second  
12 address.

1 17. The computer program product of claim 14 further  
2 comprising:

3 means for receiving a request to load the Java  
4 executable image; and

5 means for allocating the address space in the system  
6 memory prior to the branching.

1 18. The computer program product of claim 17 wherein the  
2 size of the address space is less than the size of the  
3 Java executable image stored on the nonvolatile  
4 storage device.

1 19. The computer program product of claim 14 wherein the  
2 means for storing further comprises:

3 means for writing one or more page addresses to the  
4 page map; and

5 means for writing a nonvolatile storage location  
6 corresponding to each of the written page addresses to  
7 the page map.

1 20. The computer program product of claim 14 further  
2 comprising:  
3 means for initializing the Java executable image by  
4 branching to the address, wherein the address is the  
5 initial address of the Java executable image.